UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/430,297	10/29/1999	MARK SCOTT	1848.0040000	7056

7590   04/29/2004

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EXAMINER
WILSON, ROBERT W

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/430,297	SCOTT, MARK
	Examiner	Art Unit
	Robert W Wilson	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _09 December 2003_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _1-4,6-9,12-15 and 18-22_ is/are allowed.

6)☒ Claim(s) _5,10,11,16 and 17_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

	Application No.	**Applicant(s)**
Interview Summary	09/430,297	SCOTT, MARK
	Examiner	**Art Unit**
	Robert W Wilson	2661

All participants (applicant, applicant's representative, PTO personnel):

(1) *Robert W Wilson*.   (3)_____.

(2) *Ken Patternson*.   (4)_____.

  Date of Interview: *12 April 2004*.

  Type: a)☐ Telephonic b)☐ Video Conference
        c)☐ Personal [copy given to: 1)☐ applicant   2)☐ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes   e)☐ No.
   If Yes, brief description: _____.

Claim(s) discussed: *5, 10, 11, 16, & 17*.

Identification of prior art discussed: _____.

Agreement with respect to the claims f)☐ was reached. g)☒ was not reached. h)☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *The examiner agreed to revise the office action to make the argument more understandable. The examiner pointed out that Quarni (U.S. Patent No.: 6,438, 105B1) was a reference that applied to broad claims of 5, 10, 11, 16, & 17 because Quarni teaches error correction and check sum associated with UDP* .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an
Attachment to a signed Office action.

_____
Examiner's signature, if required

DETAILED ACTION

1.0   The application of Mark Scott for a "SYSTEM, METHOD AND COMPUTER

PROGRAM PRODUCT FOR POINT-TO-POINT BANDWIDTH CONSERVATION IN AN IP

NETWORK" filed on October 29, 1999 was examined. The examiner withdraws the finality of

the action in order to allow the applicant time to respond. Claims 1-22 are pending.

Allowable Subject Matter

2.0   The present invention is directed to a communication device which "compresses data
streams from a plurality of concurrent calls from a plurality of channels into packets; aggregating
said packets into the larger data packet, said data packet including information for synchronizing
a current channel state at the originating gateway with a record of said channel state at the
destination gateway". The closest prior art Goldberg (U.S. Patent No.: 6,389,038 B1) teaches a
method or system combining or compressing data streams into a larger data packet by providing
synchronization bits which are utilized between the gateways and the multiplexer. The closest
prior art Goldberg (U.S. Patent No.: 6,389,038 B1) does not disclose either singularly or in
combination anticipate or render the following claim limitation obvious:

"said data packet including information for synchronizing a current channel state at the
originating gateway with a record of said channel state at the destination gateway" as claimed in
Claims 1, 6, & 12.

In Addition:

Claims 2-4 and 18-20 are also allowable because they depend upon **Claim 1**.

Claims 7-9 and 21-22 are also allowable because they depend upon **Claim 6**.

Claims 13-15 are also allowable because they depend upon **Claim 12**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.0   **Claims 5, 10, 11, 16, & 17** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Quarni (U.S. Patent No.: 6,438,105B1 dated February 8, 1999)

Referring to **Claim 5**, Quarni teaches: regenerating missing or damaged data packet transmitted (FACs data using UDP protocol over an IP network per Fig 1. Error correction and retransmission of packets per Abstract. Also Internet Telephony is taught per col 4 line 51. It would be obvious to one of ordinary skill in the art at the time of the invention to utilize the error correction of Quarni in an Internet Telephony system because deficiencies to UDP protocol are being resolved that are also common problems in the Internet Telephony because UDP is also used)

Transmitting a check sequence after every third data packet (Frame check sequence trailer are shown in Figure 10 around four packets, 44A-44D of Fig 10. It would be obvious to one of ordinary skill in the art at the time of the invention to have a frame check sequence associated with three packets instead of four packets.)

Using a parity system to regenerate the missing or damaged data (error correction through retransmission of packets per Abstract or col 10 line 58-col 11 line 7).

Quarni does not particularly call for: transmitting a check sequence every third packet but teaches sending a frame check sequence with each of four packets that are sent within a large packet.

It is within the level of one skilled in the art to adjust parameters or to send a check sequence with every third packet rather than every packet; thus, increasing overall throughput.

Referring to **Claim 10**, Quarni teaches: Internet Telephony system (col 4 line 51);

Redundancy means for transmitting a check sequence data packet every third packet (Frame check sequence trailer are shown in Figure 10 around four packets, 44A-44D. It would be obvious to one of ordinary skill in the art at the time of the invention to have a frame check sequence associated with three packets instead of four packets.)

Means for regenerating missing or damaged data with information located inside check sequence data packet (The frames are checked via FCS as well as associated sequence numbers and if the sequence number is missing or FCS analysis detects an error then the frame is retransmitted per col 2 line 28-col 3 line 25)

Quarni does not particularly call for: means but teaches the method or transmitting a check sequence every third packet but teaches sending a frame check sequence with each of four packets that are sent within a large packet.

It is within the skill of one of ordinary skill in the art at the time of the invention to implement the method of Quarni in hardware logic or means. It is also within the level of one skilled in the art to adjust parameters or to send a check sequence with every third packet rather than every packet.

In Addition:

Regarding **Claim 11**, comprising means for implementing a parity system (col 10 lines 59-col 11 line 70 or Fig 10. It is within the skill of one of ordinary skill in the art at the time of the invention to implement the method of Quarni in hardware logic or means.

Referring to **Claim 16**, Quarni teaches: A computer program product comprising a computer useable medium having computer program logic recorded thereon for enabling originating and destination gateways to transmit or receive data streams or data packets in an Internet telephony system and for regenerating missing or damaged data in the data packets (FACs data using UDP protocol over an IP network per Fig 1. Error correction and retransmission of packets per Abstract. Also Internet Telephony is taught per col 4 line 51. It would be obvious to one of ordinary skill in the art at the time of the invention to utilize the error correction of Quarni in an Internet Telephony system because deficiencies to UDP protocol are being resolved that are also common problems in the Internet Telephony because UDP is also used)

A first computer program product means for transmitting a check sequence data packet at regular packet intervals, wherein the duration (Fig 10), wherein the duration of said intervals is altered to reach a desired tradeoff between increased tolerance to loss and bandwidth (The applicant broadly claims "reach a desired tradeoff between increased tolerance to loss and bandwidth". The reference teaches sending FCS around each of four packets in Fig 10. It would be obvious to one of ordinary skill in the art at the time of the invention that the more FCS that are sent the lower the error rate at the cost of increased bandwidth utilization due to increased overhead. It is within the level of one skilled in the art to adjust parameters so that the amount of overhead utilized corresponds to the tolerance of errors or loss relative to bandwidth utilized) and;

A second computer program product means for regenerating the missing or damaged data in the previously transmitted data packet using information located inside of said check sequence data packet (error correction through retransmission of packets per Abstract or col 10 line 58-col 11 line 7)

Quarni does not expressly call for: computer program product means but teaches the method of achieving these limitations.

It is within the level of one skilled in the art to implement the method steps of Quarni into software or a computer program product. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer readable medium so that it could be executed on a processor.

Referring to Claim 17, further comprising a third computer program product means for using a parity system to regenerate the missing or damaged data (col 10 lines 59-col 11 line 70 or Fig 10. It is within the skill of one of ordinary skill in the art at the time of the invention to implement the method of Quarni in software or computer product means. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer readable medium so that it could be executed on a processor.)

Response to Arguments

5.0   Applicant's arguments filed 12/11/03 have been fully considered but they are not

persuasive relative to **Claims 5, 10, 11, 16, & 17.**

The examiner respectfully disagrees with the applicant's argument that Quarni does not teach or suggest "transmitting a check sequence data packet…" or "regenerating the missing or damaged data". Quarni teaches "transmitting a check sequence data packet…" as well as "regenerating the missing or damaged data" as well as "checksum" per Fig 10.

The applicant broadly claims "guaranteed delivery". Quarni teaches: "guaranteed delivery " per Fig 10. The examiner interprets "guaranteed delivery" to mean "regenerating the missing or damaged data" through the sending of FCS per Fig 10.
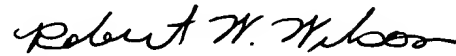
Conclusion

6.0   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The

examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-4700.
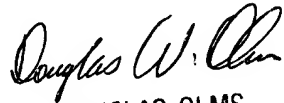
Robert W. Wilson

Robert W Wilson
Examiner
Art Unit 2661

RWW
April 8, 2004

Douglas W. Olms

DOUGLAS OLMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600